No.



8100059

# THE COMPLETO SHAVES OF AMIERICA

Stoneville Pedigreed Seed Company, Inc.

TUlhereas, THERE HAS BEEN PRESENTED TO THE

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AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to exclude others from selling the variety, or offering it for sale, or reproducing it, mporting it, or exporting it, or using it in producing a hybrid or different y therefrom, to the extent provided by the Plant Variety Protection Act 1542, as amended, 7 u.s.c. 2321 et seq.)

COTTON

'Stoneville 506'

In Testimony Whereot, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington
this 15th day of April in

the year of our Lord one thousand nine hundred and eighty-two.

Kenneth H. Eva

Commissioner

Plant Variety Protection Office

Grain Division

Agricultural Marketing Service

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### INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

#### ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

  (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

UNITED STATES DEPARTMENT OF AGRICULTURE FORM APPROVED AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION OMB NO. 40-R3822 No certificate for plant variety protection may APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE be issued unless a completed application form INSTRUCTIONS: See Reverse. has been received (5 U.S.C. 553). TEMPORARY DESIGNATION OF 1b. VARIETY NAME FOR OFFICIAL USE ONLY PV NUMBER Stoneville 506 3. GENUS AND SPECIES NAME KIND NAME TIME FILING DATE 3:00 2/20/81 P.M Cotton Gossypium Hirsutum, L. FEE RECEIVED DATE FAMILY NAME (BOTANICAL) 5. DATE OF DETERMINATION 2/20/81 500.00 250.00 1/11/82 Malvaceae February, 1981 NAME OF APPLICANT(S) 7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP 8. TELEPHONE AREA Code) CODE AND NUMBER Stoneville Pedigreed P. O. Box 167 Seed Company, Inc. 601-686-2334 Stoneville, Mississippi 38776 IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF 10. IF INCORPORATED, GIVE STATE AND 11. DATE OF INCOR-ORGANIZATION: (Corporation, partnership, association, etc.) DATE OF INCORPORATION PORATION Corporation Mississippi Sept., 1922 NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: Dr. George R. Walker, Sr., President, Stoneville Pedigreed Seed Company, Inc., P. O. Box 167 Stoneville, MS 38776 and Dr. Cleo W. Manning, P. O. Box 213, Stoneville, MS 38776 CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED: 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) 13B. Exhibit B, Novelty Statement. 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) 13D. Exhibit D, Additional Description of the Variety. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) YES X NO DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE | 14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUC-14b. LIMITED AS TO NUMBER OF GENERATIONS? TION BEYOND BREEDER SEED? YES **FOUNDATION** REGISTERED CERTIFIED 15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? NO (If "Yes," give name of countries and dates.) HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? X NO (If "Yes," give name of countries and dates.) DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL 16. JOURNAL? The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. (DATE) (SIGNATURE OF APPLICANT) Mamina (DATE) (SIGNATURE OF APPLICANT) FORM GR-470 (1-78)

#### Exhibit A

# Original and Breeding History of the Variety

Stoneville 506 originated at Stoneville, Mississippi from a hand-pollinated cross between Stoneville 7 and a non-commercial strain numbered 1834. Stoneville 7 was a commercial variety selected from a strain of Stoneville 2B with tolerance to Verticillium wilt. The background of line 1834 is obscure, but was known to be early maturing with reduced plant height.

Pure line selections were made for several generations on the basis of general field and agronomic performance. In 1973 a plant numbered 36506 was observed to be small in stature as compared to Stoneville 213 used as a standard check variety. In the progeny row stage and subsequent replicated field trials it continued to exhibit reduced plant height.

During the time that Stoneville 506 was subjected to field trials to determine its merit, no recognizable aberrant plants have been observed. Evidence of stability and uniformity can be demonstrated by the data in Table 1 which gives the numerical range of agronomic and fiber evaluations of Stoneville 506 as compared to Stoneville 213. Stoneville 213 has long been established as a stable variety so serves as an appropriate standard of comparison.



Table 1. Range of numerical measurements of agronomic and fiber characteristics of Stoneville 506 and Stoneville 213 as determined from field trials at Stoneville, Mississippi.

	Variety		
Characteristic	Stoneville 506	Stoneville 213	
Lint percentage Boll per 1b. of seed cotton	36.5-41.2 71-84	36.6-41.0 69-81	
Fiber strength, grams per grex Fiber strength, MPSI	21.9-25.4 79-96	20.4-24.6 80-93	
Fiber length, 2.5% span Fiber length uniformity	1.11-1.17 43-47	1.10-1.17 45-50	
Micronaire fineness	3.9-4.9	4.0-5.2	



Table 2. Mean plant height data of Stoneville 506 and Stoneville 213 in centimeters for ten environments.

Environment	Variety*		Ren1	Replication		
Environment	variety*	I	II	III	IV	Total
1	A	107.2	102.5	101.3	102.4	413.4
	B	112.6	112.2	112.8	111.9	449.5
2	A	92.7	95.4	96.8	91.0	375.9
	B	102.7	98.6	96.2	100.8	398.3
3	A	105.1	107.8	104.6	106.1	423.6
	B	110.6	109.8	111.3	115.4	447.1
4	A	99.7	99.4	101.4	106.0	406.5
	B	119.0	104.9	100.1	100.9	424.9
5	A	134.4	129.3	126.3	125.1	515.1
	B	136.4	139.3	138.4	132.0	546.1
6	A	130.2	123.5	123.6	119.8	497.1
	B	133.4	123.5	130.1	131.2	518.2
7	A	89.9	95.6	96.6	98.8	380.9
	B	99.2	102.2	99.7	100.6	401.7
8	A	89.9	87.5	90.8	89.6	357.8
	B	91.2	92.9	95.0	96.0	375.1
9	A	104.0	104.9	106.0	103.0	417.9
	B	103.8	108.0	107.5	107.3	426.6
10	A	106.6	105.6	103.2	103.1	418.5
	B	106.2	103.4	103.9	105.2	418.7

<sup>\*</sup> A = Stoneville 506 and B = Stoneville 213.



#### Exhibit B

# Novelty Statement

Stoneville 506 most closely resembles Stoneville 213, the variety with which it has been compared as a possible replacement. Novelty is based on the difference in plant height between Stoneville 506 and Stoneville 213.

Data obtained from plant height measurements of the two varieties in ten environments are given in Table 2. The data show that Stoneville 506 averaged five centimeters shorter plant than Stoneville 213.

The summary of the statistical analysis is given in Table 3. The results show that the variance due to varieties exceeds the 1% level of significance.



Table 3. Analysis of variance of plant height for Stoneville 506 and Stoneville 213.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	
Total	79	13228.08		
Environments	9	11973.78	1330.42	
Replications (within environments)	30	303.50	10.12	
Varieties	1	497.48	497.48	44.26**
Environments x Varieties	9	116.14	12.90	
Varieties x Replications (within environments)	30	337.18	11.24	

<sup>\*\*</sup> Exceeds the .01 level of significance.



7 - 17 -		EVILLE 506	81	00	059
2 4 A		LINT PERCENT		_	MM. DIAME
	T2	Breadth: 1 = BROAL			SE

15. BOLLS: SEED MICEN SEED MICEN					
1 = 3-4  2 Locules: 2 = 4-5  3 1 NO. SEEDS PER BOLL  3 9 5 LINT PERCENT  3 5 MM. DIAMET					
1 = NONE 2 Pitted: 2 = FINELY 3 = COURSELY  1 = NONE 2 Breadth: 1 = BROADER AT BASE 2 = BROADER AT MIDDLE					
1 = STORMPROOF (WESTBURN 70)  1 = LENGTH < WIDTH  2 = STORM RESISTANT (LANKART 57)  3 = OPEN (DELTAPINE 16)  1 = LENGTH < WIDTH  3 = LENGTH > WIDTH					
16. BRACTEOLES:					
3 Breadth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH  Teeth: 1 = 3-4 2 = 5-7 3 = 8-10					
1 Teeth: 1 = FINE 2 = COURSE 4 = OTHER (Specify) 12-14					
17. YIELD: Compared to-					
PERCENT LESS THAN					
0 6 1 PERCENT MORE THAN 3 6 = ACALA SJ-1 7 = LANKART 57					
18. FIBER LENGTH (Complete one or more of the following and give the means):					
0 5 2 SPAN LENGTH 50% 1 1 4 SPAN LENGTH 2.5% U.H.M. LENG					
MEAN LENGTH STAPLE LENGTH 32nd INCHES					
UNIFORMITY RATIO (MEAN/U.H.M.) 4 6 UNIFORMITY INDEX (50% SPAN/2.5% SPAN)					
19. FIBER STRENGTH AND ELONGATION:					
0 9 0 1,000 P.S.I. ELONGATION E					
4 3 0 MICRONAIRE READING YARN STRENGTH (Give test method) 2 3 8 STILOMETER					
20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)					
2 VERTICILLIUM 2 FUSARIUM WILT 0 ROOT KNOT NEMATODE 1 BLIGHT (Race I)					
1 BACTERIAL 0 ASCOCHYTA 0 PHYMATOTRICHUM ROOT ROT 0 RHIZOCTONIA					
0 ANTHRACNOSE 0 RUST OTHER (Specify)					
21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)					
1 BOLL WEEVIL 0 APHID 1 FLEAHOPPER 1 LEAFWORM					
0 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM					
0 STINKBUG 1 THRIP 1 CUTWORM 0 SPIDERMITE					
OTHER (Specify)					

REFERENCES: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.

(2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION BELTSVILLE, MARYLAND 20705 (Cotton)

OBJECTIVE DESCRIPTION OF VARIETY INSTRUCTIONS: See Reverse. COTTON (GOSSYPIUM SPP.) NAME OF APPLICANT(S) FOR OFFICIAL USE ONLY Dr. George R. Walker, Sr. P VPO NUMBER 8100059 ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) VARIETY NAME OR TEMPORAL Stoneville Pedigreed Seed Company, Inc. P. O. Box 167 ed as a taterance und a STONEVILLE Stoneville, Mississippi 38776 Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.s. 0 8 9 or 0 9 ) when number is either 99 or less or 9 or less. 1. SPECIES: 2 = GOSSYPIUM BARBADENSE 1 = GOSSYPIUM HIRSUTUM AREA(S) OF ADAPTION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted): 2 2 DELTA CENTRAL HIGH PLAINS EL PASO AREA EASTERN WESTERN LOW HOT VALLEYS SAN JOAQUIN OTHER (Specify) MATURITY (50% Open Boll): I = COKER 310 3 = STONEVILLE 213 2 = DELTAPINE 16 NO. OF DAYS EARLIER THAN . ..... 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1 NO. OF DAYS LATER THAN ..... 7 = LANKART 57 8 = OTHER (Specify) PLANT HABIT: 1 = FOLIAGE SPARSE owikidio) 3 = OTHER (Specify) Intermediate 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT PLANT HEIGHT: 2 = DELTAPINE 16 3 = STONEVILLE 213 1 = COKER 310 3 CM. SHORTER THAN .... 5 = ACALA 1517-70 6 = ACALA SJ-1 4 = PAYMASTER 111 INCHELN FIRE E COMOVILION CM. TALLER THAN ..... 8 = OTHER (Specify) 7 = LANKART 57 6. MAIN STEM: NO. OF NODES TO FIRST FRUITING BRANCH 18 FRUITING BRANCH 1 = LAX 2 = ASCENDING 3 = ERECT 5 (from cotyledonary node) B. LEAF PUBESCENSE: 1 = GLABROUS (HAIRS AS SPARSE AS D, SMOOTH) 7. LEAF: 2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213) CM. WIDTH OF WIDEST LEAVES 5 4 = HEAVY PUBESCENCE (H, OR H2) 5 = OTHER (Specify) AT MATURITY 9. LEAF COLOR: 4 = RED 1 = VIRESCENT YELLOW 3 = DARK GREEN (Acala-442) 2 = LIGHT GREEN 5 = OTHER (Specify). 10. LEAF TYPE: TCALESON. 3 = 3 LORENI CEE 513 1 = NORMAL 4 = OTHER (Specify) 3 = SUPEROKRA 2 = OKRA 11. FLOWER: 1 = NECTARILESS 2 = NECTARIED Pollen: 1 = CREAM Petals: | = CREAM 2 = YELLOW 2 = YELLOW 12. FRUITING BRANCH TYPE: 1 = CLUSTER 2 = SHORT 3 = NORMAL 1 = DETERMINATE 2 = INDETERMINATE A PERCACER AT MIDDLE 13. GOSSYPOL CONDITION: 1 = NORMAL BUD GOSSYPOL 3 = NORMAL GLANDS 1 = GLANDLESS 2 = REDUCED GLANDS 2 = HIGH BUD GOSSYPOL 4 = OTHER (Specify) 14. SEEDS: 2 = MODERATE (DPL-16) 1 = SPARSE (GREGG 35)

Seed Fuzz:

3 = HEAVY (ACALA SJ-1) 4 = OTHER (Specify)

FORM LPGS-470-8 (5-78) (Formerly Form GR-470-8, which may be used)

(Fuzzy seed basis)

#### Exhibit D

# Additional Description of the Variety

Stoneville 506 exhibits no special characteristics of the seed, seedling, flower or fruit parts which would give it monogenic distinction from any other variety.

In addition to the description given in Exhibit C some comparisons of agronomic and fiber properties of Stoneville 506 have been made with Stoneville 213.

Both varieties are tolerant to Verticillium wilt. Stoneville 506 is more resistant to Fusarium wilt. See Department Series No. 58, Department of Agronomy & Soils, Auburn University, Auburn, Alabama, 1981 where Stoneville 506 is reported to have 33.8 percent of the plants with wilt symptons as opposed to 68.8 percent for Stoneville 213.

Stoneville 506 has the same lint percentage as Stoneville 213, boll size is slightly smaller, fiber strength is higher for Stoneville 506, fiber length is equal, length uniformity is not measureably different and the fiber of Stoneville 506 is finer. These comparisons are shown in tabular form in Table 4.



Table 4. Comparison of agronomic and fiber properties of Stoneville 506 and Stoneville 213 in 28 replicated field trials at Stoneville, Mississippi for the period 1975-1979.

	Variety		
Characteristic	St 506	St 213	
Yield, Total lint/acre	1126	1032	
Yield, 1st pick	920	803	
Percent 1st pick	82	78	
Lint percent	39.5	39.5	
Boll size Fiber Strength	77	75	
Grams per grex	23.8	23.1	
M.P.S.I.	90	87	
Fiber length, 2.5% span	1.14	1.14	
Length uniformity	46	47	
Micronaire fineness	4.3	4.7	

